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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,102	01/19/2001	Martin Thomas	10191/1663	8931

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EXAMINER
BAUM, RONALD

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,102	THOMAS ET AL.	
	Examiner	Art Unit	
	Ronald Baum	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1/19/2001.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16 are pending for examination.

2. Claims 1-16 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Mirov et al, U.S. Patent 6,138,236.

4. As per claim 1; "A method for protecting a microcomputer system from manipulation of data stored in a storage arrangement of the microcomputer system, the microcomputer system including a microcomputer allocated to the storage arrangement [Abstract, figure 1 and accompanying description, col. 1,lines 13-col. 2,line 4], comprising the steps of: causing the microcomputer to access the storage arrangement for processing the data [Abstract, figure 1 and accompanying description, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63]; and before the storage arrangement is accessed, performing the steps of: assigning an individual identifier to one of the allocated microcomputer and the storage arrangement, generating a comparison code and storing the comparison code in the storage arrangement as a function of the individual identifier [Abstract, figure 1 and accompanying description, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63],

and at a time that is one of before and during an operation of the microcomputer system, generating a security code as a function of the individual identifier and comparing the security code with the comparison code [Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63].";

Further, as per claim 10; "A storage arrangement [This claim is the system claim for the method claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection] in which data are stored and to which is allocated at least one microcomputer that accesses the storage arrangement for processing the data, comprising: an arrangement for storing a comparison code that is generated as a function of an individual identifier assigned to one of the at least one microcomputer and the storage arrangement; and an arrangement for, at a time that is one of before and during an operation of the storage arrangement, generating a security code as a function of the individual identifier and for comparing the security code with the comparison code.";

Further, as per claim 14; "A microcomputer system [This claim is the system claim for the method claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection], comprising: a microcomputer: and a storage arrangement assigned to the microcomputer, wherein: data are stored in the storage arrangement, the microcomputer accesses the storage arrangement in order to process the data, in the storage arrangement, a comparison code that is generated as a function of an individual identifier assigned to one of the microcomputer and to the storage arrangement is stored, and the microcomputer includes an arrangement for, at a time that is one of before and during an operation of the microcomputer

system, for generating a security code as a function of the individual identifier and to compare the security code with the comparison code.".

5. Claim 2 ***additionally recites*** the limitation that; "The method according to claim 1, wherein: the data corresponds to a program.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, whereas the "plurality of micro code" is clearly a stored program);

Further, as per claim 11 ***additionally reciting*** the limitation that; "The storage arrangement [This claim is the system claim for the method claim 2 above, and is rejected for the same reasons provided for the claim 2 rejection] according to claim 10, wherein: the data correspond to a program.";

Further, as per claim 15 ***additionally reciting*** the limitation that; "The microcomputer [This claim is the system claim for the method claim 2 above, and is rejected for the same reasons provided for the claim 2 rejection] according to claim 14, wherein: the data correspond to a program.".

6. Claim 3 ***additionally recites*** the limitation that; "The method according to claim 1, wherein: a program stored in the storage arrangement is protected.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, whereas the "security sensitive environments require that the micro code be tamper proof..." clearly constitutes a protected stored program).

7. Claim 4 ***additionally recites*** the limitation that; "The method according to claim 1, wherein before the storage arrangement is accessed, the method further comprises the steps of: storing the individual identifier as the comparison code in the storage arrangement; and at the time that is one of before and during the operation of the microcomputer system, performing a check as to whether the comparison code agrees with the individual identifier, used as the security code, of the allocated microcomputer.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature clearly constitutes an individual identifier as the comparison code).

8. Claim 5 ***additionally recites*** the limitation that; "The method according to claim 1, wherein: the storage arrangement normally cooperates with the allocated microcomputer only when the security code agrees with the comparison code.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature comparison success allows for the boot-up process to continue such that "...the trust level of the unsecured micro-code is raised to a level of trusted, other boot data such as the boot blocks of the disk drive..." , and thereby clearly constitutes the storage arrangement cooperating with the allocated microcomputer when the security code agrees with the comparison code).

9. Claim 6 ***additionally recites*** the limitation that; "The method according to claim 1, wherein: before an operation of the storage arrangement, after every start-up of the storage arrangement, the security code is generated and is compared with the comparison code.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature comparison success allows for the boot-up process to continue such that "...the trust level of the unsecured micro-code is raised to a level of trusted, other boot data such as the boot blocks of the disk drive..." , and thereby clearly constitutes the storage arrangement cooperating with the allocated microcomputer when the security code agrees with the comparison code, again, throughout the memory access functions during "start-up of the storage arrangement".).

10. Claim 7 ***additionally recites*** the limitation that; "The method according to claim 6, further comprising the step of: placing the storage arrangement in a mode in which, after every start-up, the storage arrangement is switched from an inactive state to an active state only when the security code agrees with the comparison code.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature comparison success allows for the boot-up process to continue such that "...the trust level of the unsecured micro-code is raised to a level of trusted, other boot data such as the boot blocks of the disk drive..." , and thereby clearly constitutes the storage arrangement cooperating

with the allocated microcomputer when the security code agrees with the comparison code, again, throughout the memory access functions during "start-up of the storage arrangement".);

Further, as per claim 12 ***additionally reciting*** the limitation that; "The storage arrangement [This claim is the system claim for the method claim 7 above, and is rejected for the same reasons provided for the claim 7 rejection] according to claim 10, wherein: the storage arrangement is capable of being, placed in a mode in which, after every start-up, the storage arrangement is switched from an inactive state to an active state only when the security code agrees with the comparison code.";

Further, as per claim 16 ***additionally reciting*** the limitation that; "The microcomputer [This claim is the system claim for the method claim 7 above, and is rejected for the same reasons provided for the claim 7 rejection] according to claim 14, wherein: the microcomputer is capable of being placed in a mode in which, after every start-up, the microcomputer is switched from an inactive state to an active state only when the security code agrees with the comparison code.".

11. Claim 8 ***additionally recites*** the limitation that; "The method according to claim 6, further comprising the step of: placing the allocated microcomputer in a mode in which, after every start-up, the allocated in microcomputer is switched from an inactive to an active state only when the security code agrees with the comparison code.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature comparison success allows for the boot-up process to continue such that "...the

trust level of the unsecured micro-code is raised to a level of trusted, other boot data such as the boot blocks of the disk drive..." , and thereby clearly constitutes the storage arrangement cooperating with the allocated microcomputer when the security code agrees with the comparison code, again, throughout the memory access functions during "start-up of the storage arrangement".).

12. Claim 9 ***additionally recites*** the limitation that; "The method according to claim 1, further comprising the steps of: executing a validation program stored in a read-only memory of the allocated microcomputer; determining a code word in the validation program from at least one part of a memory content of the storage arrangement in accordance with a key; and comparing the code word with a comparison code word stored in the storage arrangement.". The teachings of Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, col. 5,line 51-col. 8,line 26, whereas the public key encryption oriented digital signature comparison success allows for the boot-up process to continue such that "...the trust level of the unsecured micro-code is raised to a level of trusted, other boot data such as the boot blocks of the disk drive..." , and thereby clearly constitutes the storage arrangement cooperating with the allocated microcomputer when the security code agrees with the comparison code, again, throughout the memory access functions during "start-up of the storage arrangement".).

13. Claim 13 ***additionally recites*** the limitation that; "The storage arrangement according to claim 10, wherein: the storage arrangement corresponds to a flash memory.". The teachings of

Mirov et al suggest such limitations (Abstract, figure 1,3,4 and accompanying descriptions, col. 1,lines 13-col. 2,line 4, col. 2,lines 7-63, whereas the "... flash PROM is divided into two main sections..." is clearly a storage arrangement corresponding to a flash memory.).

Conclusion

14. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (703) 305-4276. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (703) 305-9648. The Fax numbers for the organization where this application is assigned are:

After-final	(703) 746-7238
Official	(703) 746-7239
Non-Official/Draft	(703) 746-7246

Ronald Baum

Patent Examiner

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